

WMP-IFT-679 - Application No. 10/662,793
Response to Office action 9/29/2006
Response submitted December 29, 2006

RECEIVED
CENTRAL FAX CENTER

DEC 29 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1-14 (canceled).

Claim 15 (currently amended). A switching converter, comprising:

a switch including a control terminal, a first load terminal, and a second load terminal;

a rectifier configuration connected to said switch, said rectifier configuration including a plurality of output terminals for providing an output voltage to a load;

a controller configuration for providing a control signal dependent on the output voltage; and

~~a drive circuit for generating a plurality of identical drive pulses having a frequency dependent on the control signal~~ drive pulses, said drive circuit comparing the control signal with a reference signal in periodical time periods, and, in dependence on the comparison, providing a drive pulse of a given duration or no drive pulse;

~~said plurality of drive pulses for turning said switch on and off.~~

WMP-IFT-679 - Application No. 10/662,793
Response to Office action 9/29/2006
Response submitted December 29, 2006

Claim 16 (previously presented). The switching converter according to claim 15, wherein said drive circuit is configured for generating the plurality of drive pulses with an identical duration and at an identical time interval depending on whether the control signal is greater or less than a reference signal.

Claim 17 (previously presented). The switching converter according to claim 15, wherein said controller configuration includes a proportional controller, a proportional-integral controller, or an integral controller.

Claim 18 (previously presented). The switching converter according to claim 15, wherein said drive circuit includes a clocked comparator configuration being fed with the control signal, a first reference signal and a clock signal.

Claim 19 (previously presented). The switching converter according to claim 18, wherein:

the clock signal has a timing;

said clocked comparator configuration generates the plurality of drive pulses if the control signal is greater than the first reference signal; and

the plurality of drive pulses each have a predetermined time duration and a timing corresponding to the timing of the clock signal.

WMP-IFT-679 - Application No. 10/662,793
Response to Office action 9/29/2006
Response submitted December 29, 2006

Claim 20 (previously presented). The switching converter according to claim 15, wherein said controller configuration is a digital controller configuration providing a discrete-time control signal.

Claim 21 (previously presented). The switching converter according to claim 20, wherein:

said drive circuit includes a digital comparator configuration and a pulse shaping filter connected downstream of said digital comparator configuration; and

said pulse shaping filter has an output for providing the plurality of drive pulses.

Claim 22 (previously presented). The switching converter according to claim 15, wherein said controller configuration includes a noise shaping filter being fed with a signal dependent on the output voltage.

Claim 23 (previously presented). The switching converter according to claim 15, further comprising:

a level converter having an input being fed with the plurality of drive pulses and an output connected to said control terminal of said switch.

Claim 24 (previously presented). The switching converter according to claim 15, wherein said rectifier configuration includes a coil connected in series with said switch.

WMP-IFT-679 - Application No. 10/662,793
Response to Office action 9/29/2006
Response submitted December 29, 2006

Claim 25 (currently amended). A method for driving a switch in a switching converter having a rectifier configuration connected to the switch, the method which comprises:

generating a control signal dependent on an output voltage provided by the rectifier configuration; and

comparing the control signal with a reference signal in periodical time periods to form a comparison result; and

generating a drive signal with a sequence of identical drive pulses having a frequency dependent on the control signal and, depending on the comparison result, providing a drive pulse of a given duration or no drive pulse.

Claim 26 (previously presented). The method according to claim 25, which comprises:

providing the control signal with a signal component formed by integrating a differential signal made from a signal proportional to the output voltage and a reference signal.

Claim 27 (previously presented). The method according to claim 25, which comprises:

WMP-IFT-879 - Application No. 10/662,793
Response to Office action 9/29/2006
Response submitted December 29, 2006

providing the control signal with a signal component proportional to the output voltage.

Claim 28 (previously presented). The method as according to claim 25, which comprises forming the drive pulses with a timing of a clock signal depending on whether the control signal is greater or less than a reference value.